

AIR POLLUTION CONTROL PERMIT

ATTAINMENT AREA MAJOR SOURCE

EI FACILITY NO. 445031180 PERMIT NO. 86-SJK-072

STACK NO.(S). S7, S8, S9, S10 TYPE: Permit to Operate

SOURCE NO.(S). B7, B8, B9, B10, B11

THIS OPERATING PERMIT IS PERMANENT UNLESS ALTERED, REVOKED OR SUSPENDED.

In compliance with the provisions of Chapter 144, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: Thilmany Pulp and Paper Company

Street Address: Thilmany Road  
Kaukauna, WI 54130

Principal Officer or Authorized Representative, & Title:  
Mr. Thomas Jayne, Manager - Technical Services

is authorized to operate five industrial boilers described in the plans and specifications dated September 29, 1984; November 28, 1984; February 26, 1985; March 1, 1985 (EOP Request); April 18, 1985; June 14, 1985; November 21, 1985; December 21, 1985; May 14, 1986; July 25, 1986; July 29, 1986; November 18, 1986; November 20, 1986; December 12, 1986; January 15, 1987; January 16, 1987; April 15, 1987 and May 18, 1987 in conformity with the conditions herein.

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I and II hereof.

Dated at Madison, Wisconsin this 28<sup>th</sup> day of July, 1987.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

By Michael E. DeBroch for  
Donald F. Theiler, Director  
Bureau of Air Management

8059R

PART I  
SPECIFIC PERMIT CONDITIONS

A. Specific Emission Limitations

1. 122.6 Million BTU Per Hour Waste Heater Boiler No. B7, Stack No. S7

<u>Pollutant</u>	<u>Applicable Wisconsin Adm. Code, or Statute</u>	<u>Limitation/Requirement</u>
Particulate	Section NR 415.06(1)(b), Wis. Adm. Code	0.30 pounds per million BTU heat input, and 36.8 pounds per hour
Sulfur Dioxide	Section NR 417.07, Wis. Adm. Code	92.7 pounds per hour averaged over any consecutive 24-hour period*
Nitrogen Oxides	Section NR 428.03, Wis. Adm. Code	48.7 pounds per hour as nitrogen dioxide averaged over any consecutive 3-hour period**
Carbon Monoxide	Section NR 426.025, Wis. Adm. Code	19.4 pounds per hour averaged over any consecutive 3-hour period**
Organic Compounds	Section NR 419.03(1), Wis. Adm. Code	24.5 pounds per hour as methane averaged over any consecutive 3-hour period**
Visible Emissions	Section NR 431.05(1)(a), Wis. Adm. Code	20% opacity

\* This sulfur dioxide limitation was developed as an alternate emission limit under Sec. NR 417.07(5), Wis. Adm. Code.

\*\* This limitation is set in order to document the maximum emissions and avoid air pollution.

2. 206.3 Million BTU Per Hour Kraft Recovery Boiler No. B8, Stack No. S8

<u>Pollutant</u>	<u>Applicable Wisconsin Adm. Code, or Statute</u>	<u>Limitation/Requirement</u>
Particulates	Section NR 415.06(1)(b), Wis. Adm. Code	0.30 pounds per million BTU heat input, and 61.9 pounds per hour.
Sulfur Dioxide	Section NR 417.07, Wis. Adm. Code	466.3 pounds per hour averaged over any consecutive 24-hour period*
Nitrogen Oxides	Section NR 428.03, Wis. Adm. Code	45.7 pounds per hour as nitrogen dioxide averaged over any consecutive 3-hour period**
Carbon Monoxide	Section NR 426.025,  Wis. Adm. Code	471.5 pounds per hour averaged over any consecutive 3-hour period**
Organic Compounds	Section NR 419.03(1), Wis. Adm. Code	40.5 pounds per hour as methane averaged over any consecutive 3-hour period**
Total Reduced Sulfur	Sec. NR 417.06(1), Wis. Adm. Code	0.5 pounds (as sulfur) per equivalent ton of air-dried Kraft pulp, or 17.5 parts per million dry volume (as hydrogen sulfide), whichever is more restrictive.
Visible Emissions	Sec. NR 431.05(1)(a), Wis. Adm. Code	20% opacity

\* The combined sulfur dioxide emissions from Boiler No. B8, Stack No. S8 and Boiler No. B10, Stack No. S10 shall not exceed 466.3 pounds per hour as averaged over any consecutive 24-hour period. This sulfur dioxide limitation was developed as an alternate emission limit under Sec. NR 417.07(5), Wis. Adm. Code.

\*\* This limitation is set in order to document the maximum emissions and avoid air pollution. This limitation applies to the combined emissions from Kraft recovery boilers Nos. 8 and 10.

3. 192.4 Million BTU Per Hour Cyclone Boiler No. B9, Stack No. S9.

<u>Pollutant</u>	<u>Applicable Wisconsin Adm. Code, or Statute</u>	<u>Limitation/Requirement</u>
Particulate	Sec. NR 415.06(1)(b), Wis. Adm. Code	0.30 pounds per million BTU heat input, and 57.7 pounds per hour
Sulfur Dioxide	Sec. NR 417.07, Wis. Adm. Code	7.0 pounds per million BTU heat input averaged over any consecutive 24 hour period, 5.5 pounds per million BTU heat input averaged over any consecutive 30 day period, and 3,865.4 pounds per hour averaged over any consecutive 24-hour period*
Nitrogen Oxides	Section NR 428.03, Wis. Adm. Code	727.5 pounds per hour as nitrogen dioxide averaged over any consecutive 3-hour period**
Carbon Monoxide	Section NR 426.025, Wis. Adm. Code	83.6 pounds per hour averaged over any consecutive 3-hour period**
Visible Emissions	Sec. NR 431.05(1)(a), Wis. Adm. Code	20% opacity

\* The combined sulfur dioxide emissions from Boiler No. B9, Stack No. S9 and Boiler No. B11, Stack No. S9 shall not exceed 3865.4 pounds per hour as averaged over any consecutive 24-hour periods if the height of the stack exhausting these emissions is 290 feet or higher. Combined emissions shall not exceed 1.7 pounds per million BTU heat input if the stack height is between 175 and 290 feet. This sulfur dioxide limitation was developed as an alternate emission limit under Sec. NR 417.07(5), Wis. Adm. Code.

\*\* This limitation is set in order to document the maximum emissions and avoid air pollution. This limitation applies to the combined emissions from cyclone boilers Nos. 9 and 11.

4. 321.7 Million BTU Per Hour Kraft Recovery Boiler No. B10, Stack No. S10

Pollutant	Applicable Wisconsin Adm. Code, or Statute	Limitation/Requirement
Particulate	Sec. NR 415.06(1)(b), Wis. Adm. Code	0.30 pounds per million BTU heat input, and 96.5 pounds per hour
Sulfur Dioxide	Sec. NR 417.07, Wis. Adm. Code	466.3 pounds per hour averaged over any consecutive 24-hour period*
Nitrogen Oxides	Section NR 428.03, Wis. Adm. Code	45.7 pounds per hour as nitrogen dioxide averaged over any consecutive 3-hour period**
Carbon Monoxide	Section NR 426.025, Wis. Adm. Code	471.5 pounds per hour averaged over any consecutive 3-hour period**
Organic Compounds	Section NR 419.03(1), Wis. Adm. Code	40.5 pounds per hour as methane averaged over any consecutive 3-hour period**
Total Reduced Sulfur	Sec. NR 417.06(1), Wis. Adm. Code	0.5 pounds (as sulfur) per equivalent ton of air-dried Kraft pulp, or 17.5 parts per million dry volume (as hydrogen sulfide), whichever is more restrictive.
Visible Emissions	Sec. NR 431.05(1)(a), Wis. Adm. Code	20% opacity

\* The combined sulfur dioxide emissions from Boiler No. B8, Stack No. S8 and Boiler No. B10, Stack No. S10 shall not exceed 466.3 pounds per hour as averaged over any consecutive 24-hour period. This sulfur dioxide limitation was developed as an alternate emission limit under Sec. NR 417.07(5), Wis. Adm. Code.

\*\* This limitation is set in order to document the maximum emissions and avoid air pollution. This limitation applies to the combined emissions from Kraft recovery boilers Nos. 8 and 10.

5. 379 Million BTU Per Hour Cyclone Boiler No. B11, Stack No. S9

<u>Pollutant</u>	<u>Applicable Wisconsin Adm. Code, or Statute</u>	<u>Limitation/Requirement</u>
Particulate	Sec. NR 415.06(1)(b), Wis. Adm. Code	0.30 Pounds per million BTU heat input, and 113.7 pounds per hour
Sulfur Dioxide	Sec. NR 417.07, Wis. Adm. Code	7.0 pounds per million BTU heat input averaged over any consecutive 24-hour period, 5.5 pounds per million BTU heat input averaged over any consecutive 30 day period, and 3,865.4 pounds per hour averaged over any consecutive 24-hour period*
Nitrogen Oxides	Section NR 428.03, Wis. Adm. Code	727.5 pounds per hour as nitrogen dioxide averaged over any consecutive 3-hour period**
Carbon Monoxide	Section NR 426.025, Wis. Adm. Code	83.6 pounds per hour averaged over any consecutive 3-hour period**
Visible Emissions	Sec. NR 431.05(1)(a), Wis. Adm. Code	20% opacity

\* The combined sulfur dioxide emissions from Boiler No. B9, Stack No. S9 and Boiler No. B11, Stack No. B9 shall not exceed 3,865.4 pounds per hour as averaged over any consecutive 24-hour period if the height of the stack exhausting these emissions is 290 feet or higher. Combined emissions shall not exceed 1.7 pounds per million BTU heat input if the stack height is between 175 and 290 feet. This sulfur dioxide limitation was developed as an alternate emission limit under Sec. NR 417.07(5), Wis. Adm. Code.

\*\* This limitation is set in order to document the maximum emissions and avoid air pollution. This limitation applies to the combined emissions from Kraft recovery boilers Nos. 9 and 11.

B. Other Specific Conditions

1. Waste heat boiler No. B7 shall only burn wood waste, paper broke, #6 fuel oil, natural gas and solvent vapors from Akrosil silicone coater P61 as fuel.
2. Kraft recovery boiler No. B8 shall only burn Kraft pulping liquor, #6 fuel oil and natural gas as fuel.
3. Cyclone boiler No. B9 shall only burn bituminous coal, paper broke, #6 fuel oil, natural gas and solvent vapors from Akrosil silicone coater P61 as fuel.
4. Kraft recovery boiler No. B10 shall only burn Kraft pulping liquor, #6 fuel oil and natural gas as fuel.
5. Cyclone boiler No. B11 shall only burn bituminous coal, #6 fuel oil, #2 fuel oil, natural gas and paper broke as fuel.
6. The sulfur content of the coal burned in Boiler Nos. 9, 10 and 11 shall not exceed 4.4 percent by weight.
7. The sulfur content of the #6 fuel oil burned in Boiler Nos. 7, 8, 9, 10 and 11 shall not exceed 2.5 percent by weight.

Compliance Demonstration

8. Source performance tests shall be conducted within 120 days after the issuance of this permit to prove compliance with the particulate limitations for Boiler No. 7 burning bark and broke, and the sulfur dioxide and total reduced sulfur limitations for Boiler Nos. 8 and 10 burning Kraft liquor. The Department shall be informed at least 10 working days prior to the tests so a Department representative can witness the testing. At the time of notification, a stack test plan following the provisions set forth in Section NR 439.05, Wis. Adm. Code, shall also be submitted for approval.

Two copies of the report on the tests shall be submitted to the Department for evaluation within 30 days after the tests.

9. By December 31, 1987, Thilmany Pulp & Paper Company shall install a continuous emission monitor on stack No. S9 exhausting boiler Nos. 9 and 11. This monitor shall be capable of continuously measuring and recording the sulfur dioxide emissions from these boilers to determine compliance with the limits (pounds per hour and pounds per million BTU heat input) contained in Part A of this permit.

This monitor shall be installed, calibrated and maintained as described in Performance Specification 2, 40 CFR Part 60, Appendix B.

10. Thilmany Pulp & Paper Company shall install continuous fuel monitors on boiler Nos. 7, 8 and 10 for natural gas, #2 fuel oil, #6 fuel oil and Kraft liquor. Thilmany shall keep daily records of all fuels consumed in Boiler Nos. 7, 8 and 10 and the daily hours of operation for each boiler.

11. Every month, Thilmany Pulp & Paper Company shall calculate and record the daily average sulfur dioxide emission rate in units of pounds per hour and pounds per million BTU for Boiler Nos. 9 and 11 and units of pounds per hour for Boiler Nos. 7, 8 and 10. Average hourly boiler sulfur dioxide emissions shall be calculated for each boiler by dividing total sulfur dioxide emissions for each day by the hours of boiler operation for that day. These emission records shall be kept available for inspection by Department personnel for two years.
12. Compliance with the sulfur dioxide control requirements contained in this permit for Boiler Nos. B9 and B11, shall be attained by December 31, 1987. All other requirements contained in this permit are effective immediately.

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